

In the Claims:

Please amend claims 1-3, 6-8, 10, 12-13 and 15 as follows:

Claim 1 (currently amended) An apparatus for processing a bit stream that is coded in a plurality of frames, the apparatus comprising:

a circular buffer for storing a transmitted bit stream without separately storing header and data in each of the frames included in the transmitted bit stream;

a first register for storing ~~data~~ a first value indicating a first read point of the bit stream stored in the circular buffer;

a first backup register for backing up the ~~data~~ first value stored in the first register;

a second register for storing ~~data~~ a second value indicating the number of bits to be read from the circular buffer;

a third register for storing ~~data~~ a third value indicative of the number of bits to be ignored from the first read point;

a second backup register for backing up the ~~data~~ third value stored in the third register;

an adder for adding the ~~data~~ second value stored in the second register and the ~~data~~ third value stored in the third register; and

a controller responsive to the adder to determine a the number of bits to be shifted to read desired data from the circular buffer without any restriction on the location of the desired data in the frames.

Claim 2 (currently amended) An apparatus as defined in claim 1, further comprising:

a fourth register for storing ~~data~~ a fourth value indicating an address of the circular buffer where the transmitted bit stream is to be stored;

a fifth register for storing ~~data~~ a fifth value retrieved from a first memory word in the circular buffer located adjacent a second memory word identified by the first read point;

a third backup register for backing up the ~~data~~ fifth value stored in the fifth register;

a shifter for shifting data a sixth value from the second memory word and data a second value from the first memory word by the number of bits determined by the controller; and

a masking circuit for masking unwanted bits.

Claim 3 (currently amended) An apparatus as defined in claim 2, wherein the apparatus has a first read mode and a second read mode wherein, in the first read mode, the ~~data~~ first, third and fourth values in the first, the second, and the third backup registers respectively are is updated simultaneously with data stored in one of the corresponding first, third and fifth registers, respectively, wherein, in the second read mode, the ~~data~~ first, third and fifth values in the first, the second, and the third backup registers is not updated when the ~~data~~ values in the first, the third and the fifth registers respectively is updated.

Claims 4-5 (canceled)

Claim 6 (currently amended) An apparatus as defined in claims 2 wherein the masking circuit identifies the unwanted bits based upon the ~~data~~ second value stored in the second register.

Claim 7 (currently amended) An apparatus for reading data from a circular buffer storing data in a plurality of memory words without separately storing header and data of the transmitted bit stream that is coded in a plurality of frames, comprising:

a first storage device for storing ~~data~~ a first value indicative of the desired number of bits to be read;

a second storage device for storing ~~data~~ a second value indicative of a first bit to be read in a first memory word;

a shifter for receiving data stored in the first memory word and data stored in ~~the~~ a second memory word located adjacent the first memory word in the circular buffer; and

a logic circuit in communication with the first and second storage devices for controlling the shifter to shift a number of bits specified by the ~~data~~ first and second

values in the first and second storage devices to align the data first and second values in the shifter in a read position without any restriction on the location of the aligned data in the frames.

Claim 8 (currently amended) An apparatus as defined in claim 7 wherein the logic circuit comprises:

an adder for summing the data value stored in the first and second storage devices to develop a sum; and

a controller for subtracting the sum from a predetermined number to develop the number of bits to be shifted by the shifter.

Claim 9 (original) An apparatus as defined in claim 8 wherein the predetermined number is 32.

Claim 10 (currently amended) An apparatus as defined in claim 7 further comprising:

a third storage device for storing data a value indicative of the first memory word containing data to be read; and

a fourth storage device for storing data contained in the second memory word.

Claim 11 (original) An apparatus as defined in claim 7 further comprising a masking circuit for masking unwanted bits output by the shifter:

Claim 12 (currently amended) An apparatus for reading data from a circular buffer that stores ~~storing~~ data in a plurality of memory words, the apparatus comprising:

a first masking circuit for receiving at least two memory words from the circular buffer, the circular buffer storing the at least two memory words without separately storing a header and data of the memory words, the at least two memory being coded in a plurality of frames, the at least two memory words including data to be read, wherein, when a rightmost bit of the received memory words is not part of the data to be read, the first masking circuit outputs a subset including the received

memory words, which includes at least the data to be read but excludes at least the rightmost bit; and

a second masking circuit for masking unwanted bits from the output of the first masking circuit and storing the number of unwanted bits.

Claim 13 (currently amended) An apparatus as defined in claim 12 wherein the first masking circuit comprises a shifter, and the shifter develops the subset by shifting the received data until the rightmost bit contains data to be read without any restriction on the location of said rightmost bit in the frames.

Claim 14 (original) An apparatus as defined in claim 12 wherein the second masking circuit masks unwanted bits by zeroing all bits to the left of the data to be read.

Claim 15 (currently amended) A method of reading data from a circular buffer storing data in a plurality of memory words without separately storing a header and data of the transmitted bit stream that is coded in a plurality of frames, comprising the steps of:

- identifying at least one of the memory words containing data to be read;
- identifying the number of bits to be read;
- identifying a first bit to be read;
- retrieving all data in the memory words of the circular buffer storing data to be read;
- inputting the retrieved data to a shifter;
- summing the number of bits to be read with the number of bits to be ignored adjacent the first bit to be read to develop a sum;
- subtracting the sum from a predetermined number to determine a shift amount;
- shifting the data in the shifter by the shift amount to remove unwanted bits adjacent a last bit to be read without any restriction on the location of the last bit in the frames;
- masking and storing unwanted bits adjacent the first bit to be read; and
- outputting the bits to be read.

Claim 16 (original) A method as defined in claim 15 wherein the bits to be ignored are in front of the first bit to be read.

Claim 17 (original) A method as defined in claim 15 wherein the masked unwanted bits are in front of the first bit to be read.